

What I claim is:

1. A method of manufacturing a ball grid array semiconductor package comprising the steps of:
  - providing a substrate, wherein said substrate comprises a first surface and a second surface and said first surface or said second surface comprises a conductor pattern;
  - providing a plurality of conductive bump contact areas on said first surface of said substrate;
  - substantially aligning each of said conductive bump contact areas with at least one conductive bump, wherein the step of substantially aligning said conductive bump contact areas with at least one of said conductive bumps comprises the step of vibrating at least a portion of said substrate, wherein said vibration of at least a portion of said substrate substantially aligns each of said conductive bump contact areas with at least one of said conductive bumps; and
  - disposing at least one of said conductor bumps on each of said conductive bump contact areas.
2. The method of claim 1, wherein the step of vibrating at least a portion of said substrate comprises the step of ultrasonically vibrating at least a portion of said substrate.
3. The method of claim 2, wherein the step of ultrasonically vibrating at least a portion of said substrate comprises the step of ultrasonically vibrating a first end, a second end, and a third end of a film strip on which at least one of said substrates is disposed.
4. The method of claim 2, further comprising the step of discontinuing said ultrasonic vibration of at least a portion of said substrate when each of said conductive bump contact areas are substantially aligned with at least one of said conductive bumps.
5. The method of claim 4, wherein said conductive bumps comprise solder.
6. An alignment apparatus comprising:
  - means for pushing a film, wherein said film comprises at least one ball grid array semiconductor package comprising a substrate having a plurality of conductive bump contact areas disposed on a first surface of said substrate; and
  - means for vibrating said film, wherein said vibration of said film substantially aligns each

of conductive bump contact areas with at least one conductive bump positioned above said conductive bump contact areas.

7. The apparatus of claim 6, wherein said means for pushing said film comprises a first pusher positioned adjacent to a first side of said film and a second pusher positioned adjacent to a second side of said film.
8. The apparatus of claim 7, wherein said means for vibrating said film comprises a first vibrator positioned adjacent to a first end of said film and contacting said first pusher, a second vibrator positioned adjacent to a second end of said film and contacting said second pusher; and a third vibrator positioned adjacent to a third end of said film and contacting said first pusher or said second pusher.
9. The apparatus of claim 8, wherein said first vibrator, said second vibrator, and said third vibrator are ultrasonic vibrators.
10. The apparatus of claim 6, further comprising means for lifting said film when said conductive bump contact areas are aligned with at least one conductive bump.
11. The apparatus of claim 10, wherein said lifting means comprises a back-up plate, wherein said back-up plate lifts said film towards said conductive bumps and contacts each of said conductive bump contact areas with at least one conductive bump such that said conductive bumps are disposed on said conductive bump contact areas.